

“signature move” of an athlete, which could then be utilized for various purposes, such as in a gaming system or modeling system.

[0209] A single article of footwear **100** containing the sensor system **12** as described herein can be used alone or in combination with a second article of footwear **100'** having its own sensor system **12'**, such as a pair of shoes **100, 100'** as illustrated in FIGS. **87-89**. The sensor system **12'** of the second shoe **100'** generally contains one or more sensors **16'** connected by sensor leads **18'** to a port **14'** in communication with an electronic module **22'**. The second sensor system **12'** of the second shoe **100'** shown in FIGS. **87-89** has the same configuration as the sensor system **12** of the first shoe **100**. However, in another embodiment, the shoes **100, 100'** may have sensor systems **12, 12'** having different configurations. The two shoes **100, 100'** are both configured for communication with the external device **110**, and in the embodiment illustrated, each of the shoes **100, 100'** has an electronic module **22, 22'** configured for communication with the external device **110**. In another embodiment, both shoes **100, 100'** may have ports **14, 14'** configured for communication with the same electronic module **22**. In this embodiment, at least one shoe **100, 100'** may be configured for wireless communication with the module **22**. FIGS. **87-89** illustrate various modes for communication between the modules **22, 22'**.

[0210] FIG. **87** illustrates a “mesh” communication mode, where the modules **22, 22'** are configured for communicating with each other, and are also configured for independent communication with the external device **110**. FIG. **88** illustrates a “daisy chain” communication mode, where one module **22'** communicates with the external device **110** through the other module **22**. In other words, the second module **22'** is configured to communicate signals (which may include data) to the first module **22**, and the first module **22** is configured to communicate signals from both modules **22, 22'** to the external device **110**. Likewise, the external device communicates with the second module **22'** through the first module **22**, by sending signals to the first module **22**, which communicates the signals to the second module **22'**. In one embodiment, the modules **22, 22'** can also communicate with each other for purposes other than transmitting signals to and from the external device **110**. FIG. **89** illustrates an “independent” communication mode, where each module **22, 22'** is configured for independent communication with the external device **110**, and the modules **22, 22'** are not configured for communication with each other. In other embodiments, the sensor systems **12, 12'** may be configured for communication with each other and/or with the external device **110** in another manner.

[0211] Still other uses and applications of the data collected by the system **12** are contemplated within the scope of the invention and are recognizable to those skilled in the art.

[0212] Sensor systems **12, 212** as described above can be customized for use with specific software for the electronic module **22** and/or the external device **110**. Such software may be provided along with a sensor system **12, 212**, such as in the form of a sole insert **237** having a customized sensor assembly **213**, as a kit or package.

[0213] As will be appreciated by one of skill in the art upon reading the present disclosure, various aspects described herein may be embodied as a method, a data processing system, or a computer program product. Accordingly, those aspects may take the form of an entirely hardware embodiment, an entirely software embodiment or an embodiment combining software and hardware aspects. Furthermore, such

aspects may take the form of a computer program product stored by one or more tangible computer-readable storage media or storage devices having computer-readable program code, or instructions, embodied in or on the storage media. Any suitable tangible computer readable storage media may be utilized, including hard disks, CD-ROMs, optical storage devices, magnetic storage devices, and/or any combination thereof. In addition, various intangible signals representing data or events as described herein may be transferred between a source and a destination in the form of electromagnetic waves traveling through signal-conducting media such as metal wires, optical fibers, and/or wireless transmission media (e.g., air and/or space).

[0214] As described above, aspects of the present invention may be described in the general context of computer-executable instructions, such as program modules, being executed by a computer and/or a processor thereof. Generally, program modules include routines, programs, objects, components, data structures, etc. that perform particular tasks or implement particular abstract data types. Such a program module may be contained in a tangible computer-readable medium, as described above. Aspects of the present invention may also be practiced in distributed computing environments where tasks are performed by remote processing devices that are linked through a communications network. Program modules may be located in a memory, such as the memory **204** of the module **22** or memory **304** of the external device **110**, or an external medium, such as game media **307**, which may include both local and remote computer storage media including memory storage devices. It is understood that the module **22**, the external device **110**, and/or external media may include complementary program modules for use together, such as in a particular application. It is also understood that a single processor **202, 302** and single memory **204, 304** are shown and described in the module **22** and the external device **110** for sake of simplicity, and that the processor **202, 302** and memory **204, 304** may include a plurality of processors and/or memories respectively, and may comprise a system of processors and/or memories.

[0215] The various embodiments of the sensor system described herein, as well as the articles of footwear, foot contacting members, inserts, and other structures incorporating the sensor system, provide benefits and advantages over existing technology. For example, many of the port embodiments described herein provide relatively low cost and durable options for use with sensor systems, so that a sensor system can be incorporated into articles of footwear with little added cost and good reliability. As a result, footwear can be manufactured with integral sensor systems regardless of whether the sensor systems are ultimately desired to be used by the consumer, without appreciably affecting price. Additionally, sole inserts with customized sensor systems can be inexpensively manufactured and distributed along with software designed to utilize the sensor systems, without appreciably affecting the cost of the software. As another example, the sensor system provides a wide range of functionality for a wide variety of applications, including gaming, fitness, athletic training and improvement, practical controls for computers and other devices, and many others described herein and recognizable to those skilled in the art. In one embodiment, third-party software developers can develop software configured to run using input from the sensor systems, including games and other programs. The ability of the sensor system to provide data in a universally readable format